CLUSTER ANALYSIS

Objective:

Cluster analysis uses a dissimilarity matrix to essentially understand clumps that you may see on the MDS. It tells you what goes with what.

Procedure:

Using the aggregate proximity matrix constructed from pilesorts, construct a similarity matrix that then gets converted into a cluster diagram.

The dissimilarity matrix produces two types of possible cluster diagrams. The first is the single-link analysis and the other is the complete link analysis. In the single link analysis, only the numbers that are next to the diagonal in the dissimilarity matrix are clumped while in the complete link analysis all numbers are used to form the clusters. Complete link analysis more distinct groupings than single link analysis.

Pairs and then groups are linked accordingly as they become closer and closer. Thus, pairs/clusters at the top of the hierarchy were the least dissimilar and then when they become closer and closer to other pairs/clusters they connect to form a group or a possible dimension.

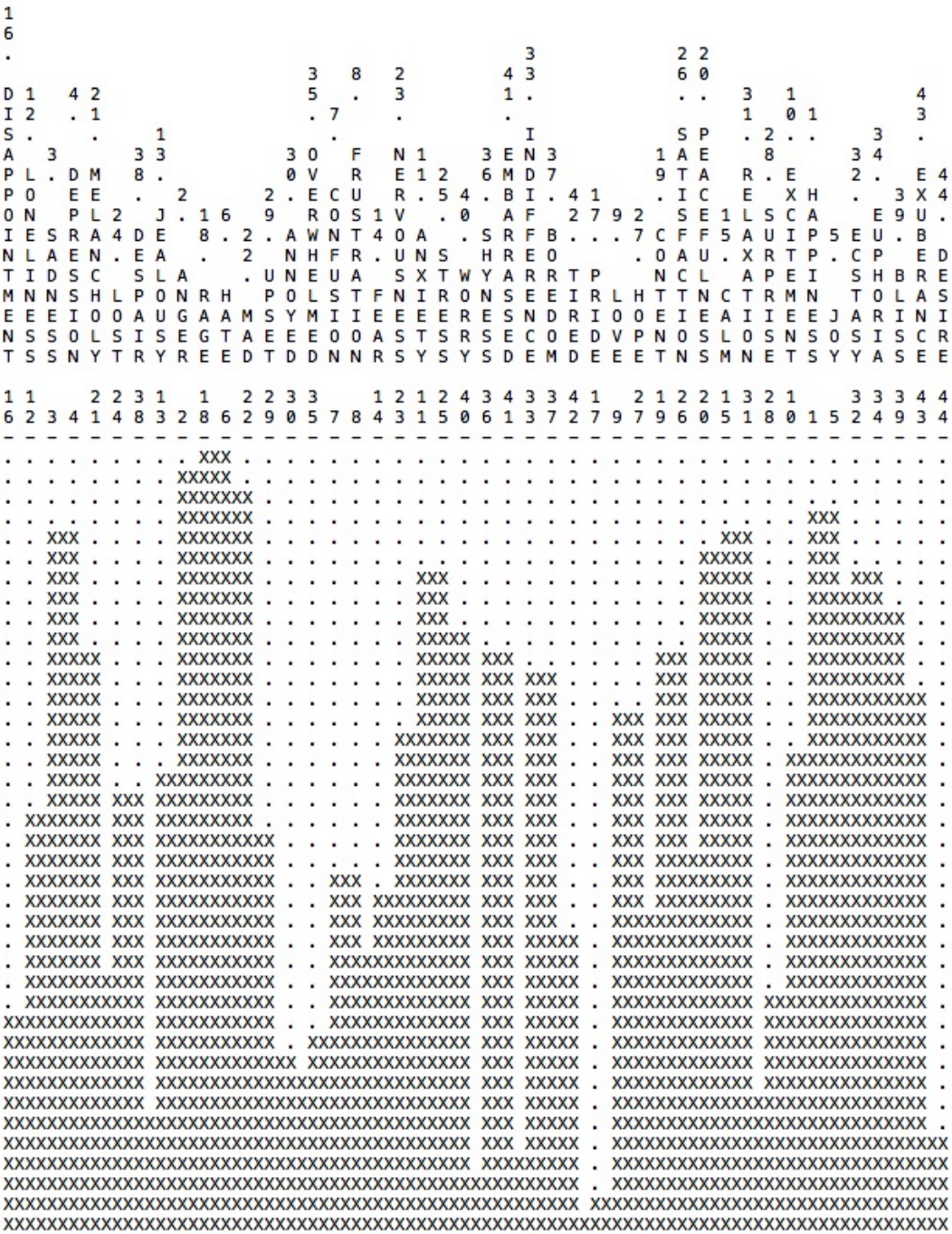
CLUSTER ANALYSIS CONSTRUCTION

*Note, although cluster analysis only requires the AGPROX data from with the pile sort or the triads, it is best to use the pile sort as there is a greater number of variables. However, the cluster analysis from the pilesorts can be examined in relationship to the cluster analysis from the triads test.

1. Go to "Emotions Pile Sorts Exercise" and follow the instructions to run the procedure
2. Tools > Clustering > Hierarchical
Input file is EMOAPX
Use the average method
Similarities
No
Part
None

CLUSTER ANALYSIS ANTHROPAC OUTPUTS

Go to the Output.log file in the folder you've designated for this exercise. The Output.log file will contain the cluster analysis diagrams.

ANTHROPAC produces one basic output for the cluster analysis and that is the hierarchical diagram of the clusters. Again, to interpret this diagram one must look at where pairs connect to form clusters. Examine what appear to be the major divisions and what each of those divisions contains as variables. Consider running both the single and the dissimilarity cluster analysis to compare the two. Then compare the cluster analysis to the MDS.

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Input dataset:          C:\EMOTIONS\EMOAPX
Method:                 AVERAGE
Type of Data:           Similarities

HIERARCHICAL CLUSTERING
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